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2024 F-150 Lightning

Specs

Key product specifications include vehicle dimensions and capacities, detailed powertrain information, transmission gear ratios and more.

2024 F-150 Lightning > Specs

Dimensions/Weights/Capacities

Accessory Reserve Capacity (ARC) Calculation
Base Curb Weight
Gross Axle Weight
Gross Axle Weight Rating (GAWR)
Gross Combination Weight (GCW)
Gross Combination Weight Rating (GCWR)
Gross Vehicle Weight (GVW)
Gross Vehicle Weight Rating (GVWR)
Interior and Front Trunk Volume
Maximum Payload Weight Rating
Maximum Payload Weight Ratings
Option Weights
Passenger Weight
Payload
Pickup Box Dimensions
SuperCrew Dimensions
Tongue Weight
Trailer Weight
Vehicle Class Ratings by GVWR
Weight Distribution
Weight Ratings

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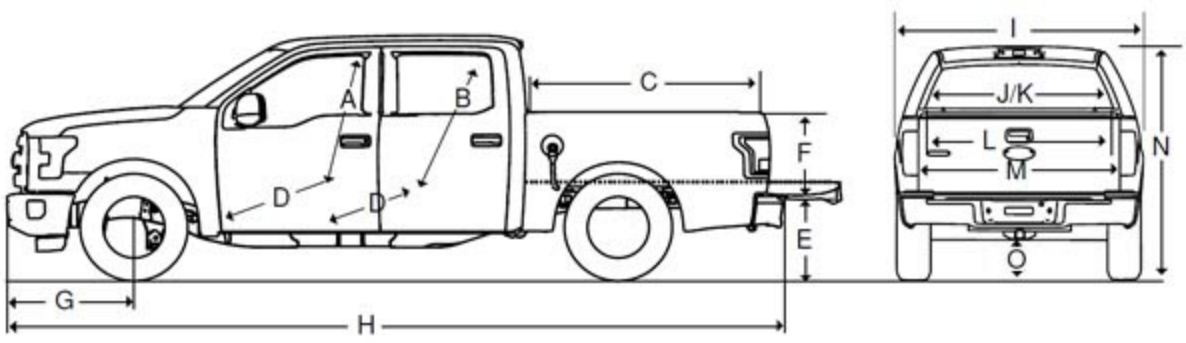
SuperCrew Dimensions



Drive	4x4

Cargo Box (ft.)		5.5
Wheelbase (in.)		145.5
Code	Description (in.)	
A	Head Room (Front)	40.8
B	Head Room (Rear)	40.4
C	Inside Length(1) (at floor)	67.1
D	Leg Room (Front; max.)	43.9
	Leg Room (Rear)	43.6
E	Open Tailgate to Ground (Empty)(2)	36.7
F	Inside Height(1)	21.4
G	Front Overhang	37.8
	Rear Overhang	49.4
H	Overall Length	232.7
	Front Bumper to Back of Cab	155.9
I	Width (Max.; excluding mirrors)	80.0
J	Shoulder Room (Front)	66.7
	Shoulder Room (Rear)	66.0
K	Hip Room (Front)	62.5
	Hip Room (Rear)	62.6
L	Width Between Wheelhouses(1)	50.6
M	Max. Load Width(1) (at floor)	60.3
N	Cab Height (Empty)(2)	78.3
O	Ground Clearance	8.4
	Track Width — Front	68.1
	Track Width — Rear	68.3
	Front Trunk Liftover Height	34.5

(1) Pickup box. Also refer to Pickup Box Dimensions.

(2) The height data shown represents dimensions of a nominal vehicle with no options. Actual height may vary due to production tolerances.

NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

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Pickup Box Dimensions

Box Size (ft.)		5.5
Cargo Volume (cu. ft.)		52.8
Code	Description (in.)	
A	Cargo Box Inside Length @ Floor	67.1
B	Cargo Box Length @ Top	65.4
C	Cargo Width @ Wheelhouse	50.6
D	Rear Opening Width @ Floor	60.3

E	Rear Opening Width @ Top	60.3
F	Cargo Body Maximum Inside Width	65.2
G	Cargo Body Height with Molding	21.4

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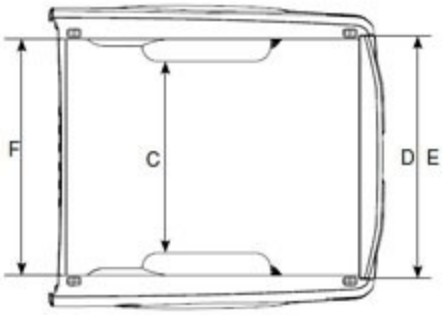

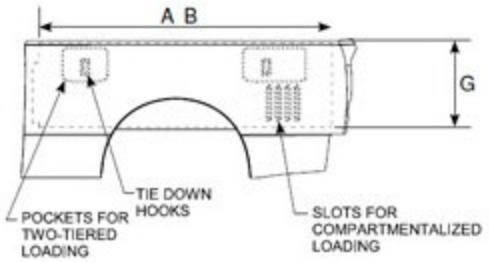

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Interior and Front Trunk Volume

Cab Position	Volume (cu. ft.)
	5.5-ft. box
Front Passenger	64.7
Rear Passenger	67.2
Total Passenger	131.9
Cargo Volume Behind First Row, Rear-Seat Cushion Folded Up	50.9
Front Trunk	14.1

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Weight Ratings

Cab Style/Drive/ WB (in.)	Battery	Max. GVWR (lbs.)	Max. Payload (lbs.)(1)	Max. Total ARC Weight (lbs.)(2)	Max. GAWR (lbs.)(3)		Base Curb Weight (lbs.)		
					Front	Rear	Front	Rear	Total
SuperCrew 4x4 145.5	Standard-range	8,350	2,235	1,108	3,770	4,900	3,161	2,893	6,054
	Extended-range (with 18" wheels)	8,550	2,132	809	3,940	4,950	3,285	3,069	6,354
	Extended-range (Platinum)	8,600	1,646	278	4,050	4,800	3,492	3,393	6,884

(1) Load rating represents maximum allowable weight of people, cargo and body equipment and is reduced by available equipment weight. See label on doorjamb for carrying capacity of a specific vehicle.

(2) Total ARC Weight is the maximum allowable weight for regular production options (OPT) and aftermarket equipment. Accessory Reserve Capacity (ARC) for models with standard equipment and the engine/transmission combination indicated.

(3) Gross Axle Weight Rating (GAWR) is determined by the rated capacity of the minimum component of the axle system (axle, computer selected springs, wheels, tires) of a specific vehicle. Front and rear GAWRs will, in all cases, sum to a number equal to or greater than the GVWR for the particular vehicle. Maximum loaded vehicle (including passengers, equipment and payload) cannot exceed the GVWR.

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Standard Equipment

F-150 Lightning 4x4 Pickup

2024 F-150 Lightning > Specs > Standard Equipment

F-150 Lightning 4x4 Pickup

POWERTRAIN:		Refer to the Ordering Guide for 50 States Usage
Battery	Type	Standard-range (98 kWh)
Transmission	Type	Single-speed
Drive Unit	Type	Electric
	Axle	Front/Rear
AXLES:		
Front Axle	Type	Long-spindle, double-wishbone, coil-over-shock IFS
	Gross Axle Weight Rating (GAWR) (lbs.)	3,770-4,050
Rear Axle	Type	Semi-floating
	Gross Axle Weight Rating (GAWR) (lbs.)	4,800-4,950
BRAKES:		
Front/Rear Disc	Type	Vented with Nitro Tough Iron, twin-piston front and single-piston rear caliper
	Rotor Diameter — Front/Rear	13.8"/13.7" 350 mm/336 mm
Anti-Lock Brake System		4-wheel regenerative braking (4-channel with electronic brakeforce dstribution)
Parking Brake		Electric (rear)
JACK:	Capacity (lbs.)	3,174 (@ 9.8 in.)
STEERING:	Type	Power, rack-and-pinion; electric power-assist
	Ratio	17.4:1
SUSPENSION:		
Frame	Type	Fully boxed, modular high-strength steel with 4 crossmembers that are welded on both sides
	Section Modulus (cu. in.)	See frame specifications
Springs, Front	Type	Coil, computer selected
Springs, Rear	Type	Coil, computer selected
Shock Absorbers	Gas-Pressurized Monotube — Front/Rear	1.1"/1.1" 28 mm/28mm
Stabilizer Bar	Position/Diameter/Type	Front: 25.4 mm/hollow Rear: 25.4 mm/hollow
TIRES:	Type	Steel-belted radial all-terrain
	Size	Five 275/65R18 all-terrain

	Spare Tire Carrier	Rear underframe, winch-type with safety catch (locking-type)
WHEELS:	Type and Size	Four 18" aluminum with same-size steel spare (6-hole disc)

NOTE: Refer to Weight Ratings for Standard & Available Weight Rating Specifications (GVWR/Payload/Spring & GAWR/Base Curb Weight).

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Powertrain

Drivetrain/Battery Configuration	Standard-Range Battery	Extended-Range Battery
Horsepower(1)	452 (337 kW)	580 (433 kW)
Torque (lb.-ft.)(1)	775	775
Drivetrain layout	Dual eMotor, front/rear transverse-mounted, four-wheel drive	

(1) Calculated via peak performance of the electric motor(s) at peak battery power. Your results may vary. Based on manufacturer testing using computer engineering simulations.

PERFORMANCE NOTE: Horsepower and torque are independent attributes and may not be achieved simultaneously.

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Chassis

Brake System Specifications
Frame Specifications
Shock Absorber Specifications
Spring Specifications — Front Coil
Spring Specifications — Rear Coil
Steering
Tire Specifications
Wheel Specifications

2024 F-150 Lightning > Specs > Chassis

Brake System Specifications

	Standard
Description	Power vented disc with Anti-Lock Brake System (ABS), electronically controlled brake boost and Automatic Emergency Braking (AEB)
Front Specifications	
Rotor Material	Nitro Tough Iron
Rotor Size (dia. x thickness) (mm)	356 x 34
Swept Area (sq. mm)	53,134
Caliper Description	Sliding-caliper, dual-piston
Caliper Piston Dia. (x2; mm)	54
Rear	
Rotor Material	Nitro Tough Iron
Rotor Size (dia. x thickness) (mm)	350 x 24
Caliper Description	Sliding-caliper, single-piston with electric integrated parking brake (eIPB)
Caliper Piston Dia. (mm)	54

Swept Area (sq. mm)	42,997
Electric Parking Brake Rating (kN)	25.5

NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

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Frame Specifications

Model	Wheelbase (in.)	No. of Crossmembers	Maximum Side Rail Section (in.)	Section Modulus (cu. in.)	Yield Strength (psi)
SuperCrew 4x4	145.5	4	8.46 x 3.19 x .118 9.06 x 3.58 x .102 (HPP)	5.14 5.55	95,700 49,300

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Shock Absorber Specifications

Usage	Front			Rear		
	No. Used	Piston Dia.	Type	No. Used	Piston Dia. (in./mm)	Type
Standard	2	28 mm/1.10 in.	Monotube gas-pressurized	2	1.77/45 1.37/35	Monotube gas-pressurized Twin-tube gas-pressurized

NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

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Spring Specifications — Front Coil

Model	Combined FGAWR Rating (lbs.)	Curb Height of Spring (in.)	Inside Dia. (Top/Bottom; in.)	Wire Dia. (in.)	Spring Rate (lbs./in. ea.)
Pro	3,900	12.76	3.78/2.75	0.73	543
XLT, Flash and LARIAT		12.67		0.73	543
Platinum		12.71		0.75	600

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2024 F-150 Lightning > Specs > Chassis

Spring Specifications — Rear Coil

Model	Combined RGAWR Rating (lbs.)	Curb Height of Spring (in.)	Inside Dia. (in.)	Wire Dia. (in.)	Spring Rate (lbs./in. ea.)
Pro	3,925	13.9	4.37	0.69	251
XLT, Flash and LARIAT		13.5		0.69	251
Platinum		13.9		0.70	280

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Steering

Cab	Wheelbase (in.)	Rack-and-Pinion Power Steering[1]		Turning Diameter Curb-to-Curb (ft.)
		Rack Speed (mm per Revolution)	Vehicle Steering Ratio	
SuperCrew	145.5	54.5	17.4:1	TBA

(1) All gears include nibble damper.

NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

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Tire Specifications

Size	Rim Width (in.)	Section Width (in.)	Static Loaded Radius (in.)
275/65R18 116T A/T	8.5	10.86	14.18
275/60/R20 116T A/S	8.5	11.39	15.16
275/60R20 115T A/T (T2P)	8.5	11.10	14.75
275/50R22 115H A/S	8.5	10.90	14.98

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2024 F-150 Lightning > Specs > Chassis

Wheel Specifications

Wheel Type	Wheel Size (in.)	Inset (in./mm)	No. of Studs	Bolt Circle (in./mm)	Maximum Wheel Capacity Load Front/Rear (lbs.)
18" machined aluminum with high gloss black-painted pockets (643)	18 x 8.5	1.73/44	6	5.3/135	2,025/2,249
20" Dark Carbonized Gray-painted aluminum (645)	20 x 8.5	1.73/44	6	5.3/135	2,025/2,249

22" bright-machined aluminum with Ebony Black-painted pockets (647)	22 x 8.5	1.73/44	6	5.3/135	1,950/2,166
22" black-painted aluminum (64Y)	22 x 8.5	1.73/44	6	5.3/135	1,950/2,166

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Electrical

Standard Lighting/Reflector Equipment

Trailer Towing Wiring Harness

2024 F-150 Lightning > Specs > Electrical

Standard Lighting/Reflector Equipment

Light Reflector	Application
Headlamps (LED) with Dynamic Bending	All Series
Parking Lamps	All Series — Integral with turn signals
Front/Rear Turn Signals	All Series
Front Side Marker Lamps	All Series
Front Side Reflectors	All Series
Rear Side Reflectors	All Series
Rear Side Marker Lamps	All Series — integral with taillamps
License Plate Lamps	All Series
Two Combination Taillamps with Integral Stop, Turn Signal and Backup Lamps and Reflective Surface	All Series
Rear Reflectors	All Series
Front Daytime Running Lamps	All Series

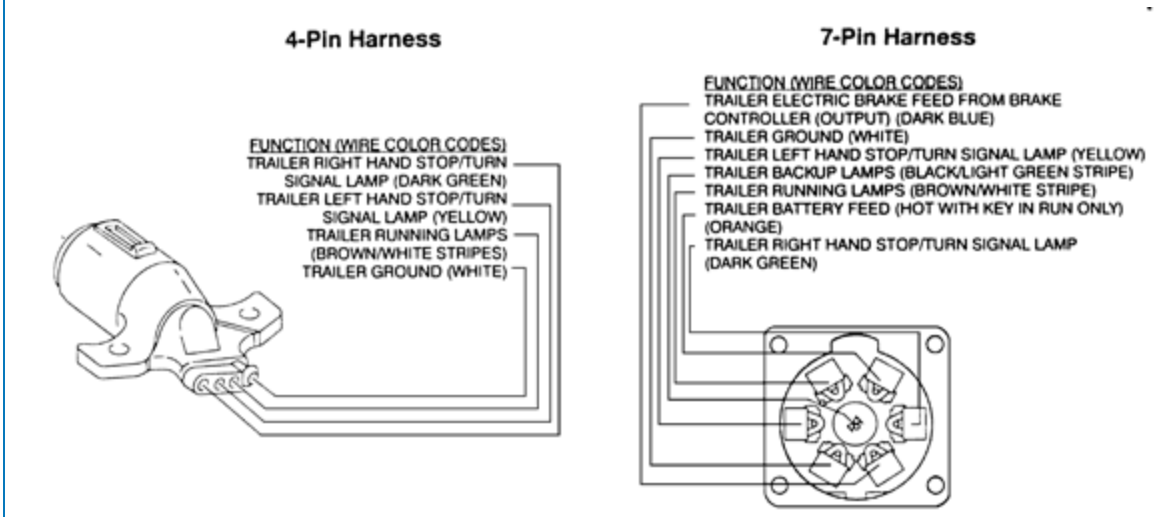
NOTE: Specifications and descriptions contained within are based upon the most current information available at the time of release. Content subject to change.

2024 F-150 Lightning > Specs > Electrical

Trailer Towing Wiring Harness

Circuit Number	Circuit Description	Color Code
RAT08	Ground	White
CAT17	Parking Lamps	Brown
CAT14	Trailer Battery Feed	Orange
CAT19	To Electric Brakes	Dark Blue
CAT09	RH Turn Signal and Stop Lamps	Dark Green
CAT06	LH Turn Signal and Stop Lamps	Yellow

CAT03/CAT16	Trailer Backup Lamps	Gray with Brown Stripe
CBP30	Front Brake Controller Running Lamp Feed/Park Lamp Feed	Yellow with Blue Stripe
CBP40	Rear Brake Controller Running Lamp Feed/Park Lamp Feed	Yellow with Green Stripe
CLS30	Brake Controller Running Lamp Feed/Park Lamp Feed	Violet with White Stripe
CCB08	Vehicle Stop Lamps	Violet with White Stripe
SBB18/SBB17	B+ to Electric Brake Controller	Yellow with Red Stripe


4-Pin Harness
FUNCTION (WIRE COLOR CODES)
TRAILER RIGHT HAND STOP/TURN SIGNAL LAMP (DARK GREEN)
TRAILER LEFT HAND STOP/TURN SIGNAL LAMP (YELLOW)
TRAILER RUNNING LAMPS (BROWN/WHITE STRIPES)
TRAILER GROUND (WHITE)
7-Pin Harness
FUNCTION (WIRE COLOR CODES)
TRAILER ELECTRIC BRAKE FEED FROM BRAKE CONTROLLER (OUTPUT) (DARK BLUE)
TRAILER GROUND (WHITE)
TRAILER LEFT HAND STOP/TURN SIGNAL LAMP (YELLOW)
TRAILER BACKUP LAMPS (BLACK/LIGHT GREEN STRIPE)
TRAILER RUNNING LAMPS (BROWN/WHITE STRIPE)
TRAILER BATTERY FEED (HOT WITH KEY IN RUN ONLY) (ORANGE)
TRAILER RIGHT HAND STOP/TURN SIGNAL LAMP (DARK GREEN)

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